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Morgan, Robert W.

Serial No.:

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Daniel I. Kerpelman et al.

Filed:

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For:

INTEGRATED INTERACTIVE

SERVICE TO A PLURALITY OF

MEDICAL DIAGNOSTIC

SYSTEMS

Atty. Docket:

Examiner:

GEMS:0066/YOD

15-SV-5374

Assistant Commissioner for Patents
Washington, D.C. 20231

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 2023 Non the date below:

November 11, 2002

Date

Carla Deblaw

/ RESPONSE TO OFFICE ACTION MAILED SEPTEMBER 10, 2002

Dear Sir:

In Office Action mailed on September 10, 2002, claims 1-32 were rejected. Specifically, claims 1-13 and 15-32 were rejected under 35 U.S. §103(a) as being unpatentable over Wong et al. (U.S. Pat. No. 6,260,021) in view of Ballantyne et al. (U.S. Pat No. 5,867,821). Furthermore, claim 14 was rejected under 35 U.S. §103(a) as being unpatentable over Wong et al. (U.S. Pat. No. 6,260,021) in view of Ballantyne et al. (U.S. Pat No. 5,867,821) and Official Notice. The Applicants respectfully traverse these rejections. All pending claims are believed to be clearly patentable for the reasons summarized below.

The burden of establishing a prima facie case of obviousness falls on the Examiner. Ex parte Wolters and Kuypers, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a prima facie case, the Examiner must not only show that the combination includes all of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. Ex parte Clapp, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Claims 1-13 and 15-32

As the Examiner rejected independent claims 1, 16, and 25 under the same proposed combination, these claims will be discussed together. The Examiner's rejection of claims 1, 16, and 25 fails for at least three reasons. First, the Examiner has misconstrued the Wong et al. reference and applied some basic assumptions that are unsupported by the reference. Second, the proposed combination of references fails to include at least one of the recited elements, such as "a service request," "a data communications control system coupled to a plurality of diagnostic systems," and "a plurality of medical diagnostic systems coupled to an internal network" of a medical diagnostic facility. Each of these claimed elements is missing from the Examiner's

suggested combination. Third, the Examiner has failed to provide support for a motivation or suggestion to combine the references.

Examiner's Basic Assumptions Not Supported by References

The Examiner uses the Wong et al. reference to assert some basic assumptions in rejecting independent claims 1, 16, and 25. The Examiner assumes that the internal network is depicted as item 36 in Figure 1 of the Wong et al. reference. Likewise, the Examiner relates a plurality of diagnostic systems coupled to the internal network to items referenced by numeral 38 in Figure 1 of the Wong et al. reference. The Examiner uses these assumptions from the Wong et al. reference as the basis for the rejection of claims 1, 16, and 25. However, the Examiner's assumptions are not supported by Wong et al., and even if correct, do not warrant the rejection.

First, the Examiner assumes that the workstations of the Wong et al. reference can be considered medical diagnostic imaging systems by having the network of Wong et al. connect to the Internet. However, the network referred to by the Examiner is an internal network and cannot be interchanged as an external network. Indeed, the Examiner's assumption fails because network 36 of Figure 1 in the Wong et al. reference is defined by the Examiner as an internal network. Clearly, the network cannot be an external and an internal network, as each is mutually exclusive.

Furthermore, the Examiner's assumption regarding the inclusion of a medical diagnostic imaging system as a client is inconsistent with the teaching and problem addressed by Wong et al., that is a lack of uniformity of access to stored images. Wong et al., col. 3, lines 17-21. Indeed, the Wong et al. reference teaches that the workstations should interface only with the Medical Image Server, and not that the "clients" are or could be medical diagnostic imaging systems. In particular, the Wong et al. workstations 38 access image data from the server 12 and, as such, are not medical diagnostic imaging systems at all (e.g. MRI, ultrasound, CT, X-ray), as that term is used in the claimed

context. Clearly, the Examiner's assumption is unsupported because the reference fails to disclose or teach that the workstations are medical diagnostic imaging systems.

Moreover, the Examiner's assumption regarding the coupling of the Wong et al. Picture Archival Communication (PAC, item 26) system, and the Radiology Information (RI, item 18) system to the internal network (Intranet item 36) is not supported in the Wong et al. reference. The RI and PAC systems communicate image data with the CRIE and CIIE, which communicate to the Medical Image Server. Wong et al., col. 7, lines 37-42. Likewise, the Medical Image Server transmits image data to the workstations, but the workstations are on the internal network as noted by the Examiner. Indeed, the Wong et al. reference does not teach or suggest a medical diagnostic imaging system coupled to the same internal network as the workstations. In fact, the Wong et al. reference teaches that the workstations should interface only with the Medical Image Server. Wong et al., col. 8, lines 57-59. Again, the Examiner's assumption regarding the coupling of a medical diagnostic imaging system with the internal network is inconsistent with the teaching and problem addressed by Wong et al. The PAC and RI systems do not communicate over the internal network, nor are they coupled to the internal network defined by the Examiner. Wong et al., col. 7, lines 29-37 and 59-65. Accordingly, the Applicants respectfully request the Examiner withdraw the rejection of independent claims 1, 16, and 25 as based on the Wong et al. reference.

The References Fail to Teach or Suggest – Medical Diagnostic Systems Coupled to an Internal Network

All of the independent claims 1, 16, and 25 recited methods or a system that facilitates transmission at service requests between remote service provider and "a plurality of medical diagnostic systems coupled to an internal network" of a medical diagnostic facility. The Examiner's proposed combination does not support rejection of the features of the invention. The Examiner asserted that the Wong et al. reference discloses medical diagnostic systems coupled to an internal network. However, Wong et al.

reference does not teach or disclose that the RI and PAC systems are coupled to the network 36. In fact, the RI and PAC systems are attached to the CRIE and the CIIE respectively. See Wong et al., Fig. 1. Indeed, the CRIE and CIIE act as an interface between the medical image server and the RI and PAC systems. See Wong et al., col. 7, lines 38-40. While the medical image server is disclosed as being coupled to the network 36, the RI and PAC systems clearly are not coupled the network 36, as discussed above. Accordingly, the Wong et al. reference does not disclose the claimed element of "a plurality of medical diagnostic systems coupled to an internal network" of a medical diagnostic facility, or communication of service requests in that context, as recited in the claims.

While the Examiner only relies on the Ballantyne et al. reference for providing a data communications control system coupled to a plurality of diagnostic systems, receiving and processing the request at the remote service provider; and transmitting a response from the remote service provider in response to the request, the reference does not cure the deficiencies of the Wong et al. reference. The Applicants have reviewed the passages relied upon by the Examiner, but the reference is believed to be absolutely devoid of any teaching or suggestion of "a plurality of medical diagnostic systems coupled to an internal network" of a medical diagnostic facility, or exchange of service requests in that context, as recited in claims.

The Ballantyne et al. reference is directed to a method of distributing healthcare information, such as medical records, educational information, and entertainment services. Ballantyne et al., col. 1, lines 56-61. While the reference does disclose a network, the reference fails to disclose a plurality of medical diagnostic systems coupled to an internal network. In fact, the communications controller cited by the Examiner is merely used to divide signals into channels for different video feeds within the hospital. Ballantyne et al., col. 5, lines 6-22. Clearly, the Ballantyne et al. reference cannot disclose the claimed element of a plurality of medical diagnostic systems coupled to an internal network, because it fails to even disclose a medical diagnostic system.

Accordingly, the Wong et al. and the Ballantyne et al. references fail to disclose or suggest, "a plurality of medical diagnostic systems coupled to an internal network" of a medical diagnostic facility, or exchange of service requests in that context, as recited in the

The References Fail to Teach or Suggest -A Data Communications Control System

claims.

Each of the independent claims recites "a data communications control system" used to transmit service requests between the remote provider and the "plurality of diagnostic systems" discussed above. However, the proposed combination does not disclose this element. The Examiner admitted that Wong et al. does not disclose the claimed "data communications control system." Thus, for the rejection to stand, the element must be found within the Ballantyne et al. reference. Referring to the Ballantyne et al. reference, the Examiner asserted that the communications controller is equivalent to the data communications control system. However, in Ballantyne et al., the communications controller is coupled to the *internal network*, not to an internal network and to a remote service provider, as recited in the claims. Ballantyne et al., col. 5, lines 6-12. Clearly, the communications controller is not equivalent to the data communications control system because the communications controller is limited to internal hospital networks. Thus, the Ballantyne et al. reference does not disclose "a data communications control system," as recited in claims. Accordingly, the Wong et al. and the Ballantyne et al. references, alone or in the proposed combination, fail to disclose or suggest all of the elements recited in the claims.

The References Fail to Teach or Suggest - A Service Request

Moreover, another important missing element from the proposed combination is "a service request." While the Examiner asserted that the Wong et al. reference discloses a service request, the element is not supported by either reference. However, the Wong et al. reference does not teach operational aspects or anything even related to service within

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the reference. In fact, the Wong et al. reference is simply directed to providing uniform medical images. Wong et al., col. 1, lines 6-11. Specifically, the problem disclosed in the reference is related to the variety of medical image distribution systems and a lack of uniform access of stored images from generated from the systems. Wong et al., col. 2, lines 17-67. In fact, the reference specifically describes the requests as medical image requests, not a *service request* as claimed. Wong et al., col. 4, lines 1-7. Clearly, the distributing of medical images is not a *service request* as recited in the claimed subject matter.

While the Examiner only relies on the Ballantyne et al. reference for the reasons discussed above, applicants point out that the reference does not cure the deficiencies of the Wong et al. reference as regards service requests. The Applicants have reviewed the reference, but it is believed to be absolutely devoid of any teaching or suggestion of "a service request," as recited in claims. As discussed above, the Ballantyne et al. reference is directed method of distributing healthcare information, such as medical records, educational information, and entertainment services. While the reference does disclose a network, the reference fails to disclose a medical diagnostic system, which is recited in the claims as generating the service request. With the reference failing to disclose diagnostic systems, the Ballantyne et al. reference cannot disclose or teach a service request, as recited in the present claims. Accordingly, the Wong et al. and the Ballantyne et al. references fail to disclose or suggest "a service request," as recited in the claims.

No Motivation or Suggestion to Combine the References

Applicants maintain that the claim 1, 16, and 25 recite various other patentably distinct features, and the above-mentioned features are believed to distinguish the claims over the Wong et al. and the Ballantyne et al. references cited alone or in the combination proposed by the Examiner. Assuming, *arguendo*, such combination were even possible, the Examiner has failed to point to a convincing suggestion or motivation that would lead one skilled in the art to modify the Wong et al. reference or the Ballantyne et al. reference

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as proposed. Indeed, the Examiner has failed to meet the required burden of articulating a motivation for the combination of Wong et al. and Ballantyne et al. Instead, the Examiner stated that:

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include the communication controller as taught by Ballantyne et al. within the medical image distribution system as taught by Wong et al. with motivation [sic] of assisting the user with processing a service request, thereby providing a simpler and quicker way to access desired data over a network.

This statement is nothing more than an unsupported assertion about the teachings of Ballantyne et al. and Wong et al., not a convincing line of reasoning *why* one of skill in the art would combine the references.

The Federal Circuit recently overturned the Board, which had upheld an examiner's rejection in a similar situation. In the case of *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002), the examiner rejected the applicant's claims under 35 U.S.C. § 103 without giving the supporting motivation to combine references. The Board subsequently affirmed the examiner's rejection. In overturning the Board's decision, the Federal Circuit stated that:

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. *See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references."

'The factual inquiry whether to combine references must be thorough and searching. *Id.* It must be based on *objective evidence of record.* This precedent has been reinforced in

myriad decisions, and cannot be dispensed with. [citations omitted]. *In re Lee*, 61 U.S.P.Q.2d at 1433 (emphasis added).

In the present case, the Examiner's unsupported assertion does not meet the evidentiary standard required for combining references under Section 103. Indeed, the Examiner has impermissibly relied on hindsight, using the teachings of Applicants to find the suggestion to combine the alleged teachings of Wong et al. and Ballantyne et al. As discussed above, the Wong et al. reference is directed to solving the problems associated with a lack of uniformity in accessing stored images. Wong et al., col. 3, lines 17-21. Indeed, the Wong et al. reference is strictly related to the sharing of medical image files with clients through a medical image server. Conversely, the Ballantyne et al. reference is directed to a means of sharing information throughout an internal hospital network. Ballantyne et al., abstract; col. 1, lines 56-61. In fact, the reference is clearly directed to providing a paperless hospital environment. Ballantyne et al., col. 2, lines 55-63. Further, the Ballantyne et al. reference does not even disclose medical diagnostic systems, but is related to administrative issues, such as security, video entertainment, and general hospital accounting. Ballantyne et al., col. 2, lines 40-45. As the Examiner has not pointed to any suggestion or motivation in the references or in any other art of record for the proposed combination, the Examiner's alleged combination is unsupported.

Accordingly, because the Examiner has failed to show that the cited references disclose *all* of the claimed elements, as well as a convincing line of reasoning as to why one of ordinary skill in the art would have found the claimed invention obvious in light of the cited reference, the Examiner has failed to establish a *prima facie* case of obviousness. Therefore, independent claims 1, 16, and 25 and their respective dependent claims are believed to be patentable over Wong et al. in view of Ballantyne et al.

Claim 14

The Examiner rejected claim 14 under 35 U.S. §103(a) as being unpatentable over Wong et al. (U.S. Pat. No. 6,260,021) in view of Ballantyne et al. (U.S. Pat No. 5,867,821) and Official Notice. The Examiner is merely using the Official Notice to disclose the step "of placing the service request in a queue, and transmitting the service request in accordance with an established schedule." While the Applicants do not agree with the Examiner's assertion, it is clear that the Official Notice fails to cure the deficiencies of the Wong et al. and the Ballantyne et al. references. In view of the remarks set forth above with regard to the missing elements not found in the Wong et al. and the Ballantyne et al. references, the Examiner's rejection of claim 14 is unsupportable. Furthermore, as the claim depends from independent claim 1 that is believed to be patentable for reasons discussed above, the respective dependant claim is also believed to be patentable. Therefore, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of the pending claim 14.

Moreover, the Applicants respectfully request the Examiner to provide support under M.P.E.P. § 2144.03 for the Examiner's apparent assertion of what is "well known in the art." It is apparent in the rejection of the claim that the Examiner has made a significant logical leap from the actual teachings of the reference, to summarily declare the recited claim obvious without proper support for the apparent teachings, suggestions, and "well known" elements of the prior art. Essentially, the Examiner has taken Official Notice of facts outside of the record that the Examiner apparently believes are capable of demonstration as being "well-known" in the art. Therefore, in accordance with M.P.E.P. § 2144.03, the Applicants hereby seasonably traverse and challenge the Examiner's use of Official Notice. Specifically, the Applicants respectfully request that the Examiner produce evidence in support of the Examiner's position as soon as practicable during prosecution and that the Examiner add a reference to the rejection in the next Official Action. If the Examiner finds such a reference and applies it in combination with the Wong et al. reference, the Applicants further request that the Examiner specifically

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identify the portion of the newly cited reference that discloses the allegedly "well known" elements of the recited claim, as discussed above, or withdraw the rejection.

Conclusion

عسود رائي آي

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Date: Novembeell, 2002

Respectfully submitted,

Patrick S. Yoder

Reg. No. 37,479

Fletcher Yoder & Van Someren

P.O. Box 692289

Houston, TX 77269-2289

(281) 970-4545